



# **American Clean Energy and Security Act of 2009**

**Randy A. Foutch**  
**Chairman and CEO**

Washington D.C.

May 5<sup>th</sup>, 2009

## Opening Comments

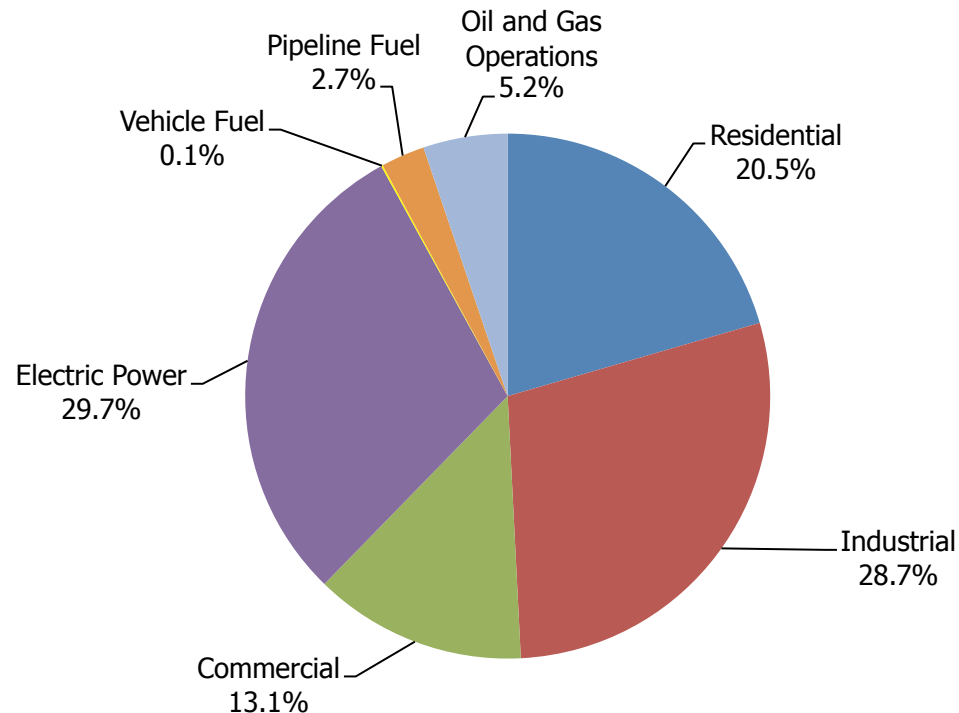
- If we need carbon cap and trade legislation, we need to make absolutely sure we have completely transparent and fair legislation. And, we need to thoroughly understand the future ramifications.
- We will be creating a huge consumer tax and cost of living increase.
- The management and trading of the massive cap and trade will fall to financial traders. What safeguards do we have to appropriately manage this lucrative process?
- The negative impact on US jobs will potentially be huge compared to other countries who do not have these regulations.
- It is possible to allow this process to proceed at a very low key pace and approach and determine the impacts before a massive mistake is made.
- It will take time for the unintended consequences to manifest themselves and that alone is reason to move very slowly and with great diligence and transparency. This is too important to get it wrong.
- We need to make sure Natural Gas can “bridge” us to the future. It will take time to reduce carbon emissions.

## Natural Gas Facts

- Natural Gas is the cleanest hydrocarbon fuel
- Natural Gas is produced in 32 states and used in every state
- Natural Gas is easily and efficiently transported
- Natural Gas is used by 65 million residential consumers
- Natural Gas is used by over half of the homes in America for heating and achieves efficiencies of over 90%
- Natural Gas in the U.S. is produced mainly by small non-integrated Natural Gas producers
- The Oil and Natural Gas industry supports 6 million American jobs

# Natural Gas Facts

- Natural Gas is used in every sector of the economy



- Natural Gas is used to make many products including paints, fertilizers, antifreeze, film and medicines

# Natural Gas is a “Bridge Fuel”

Numerous different sources of data – but most agree that Natural Gas is a fuel that can bridge us to an even more environmentally secure future:

- Natural Gas is CH<sub>4</sub>: one part carbon and four parts hydrogen and produces fewer carbon emissions per unit of energy than any other hydrocarbon
- Green House Gas (GHG) emissions from Natural Gas is 23% lower than diesel, and 30% lower than gasoline – California Energy Commission
- Natural Gas combustion produces no solid waste and very little particulate emissions
- Natural Gas is by far the most environmentally friendly (i.e., least carbon-intensive) fossil fuel – American Clean Skies Foundation
- Non-Industry groups refer to Natural Gas as:
  - “Bridge Fuel” for the next 50 years – Natural Resources Defense Council
  - “Prince of Hydrocarbons” – Union of Concerned Scientists

# Natural Gas is an abundant, secure and domestic natural resource

- Current industry estimates of Natural Gas reserves range from 50 years to more than 100 years of supply at current consumption:

## NATURAL GAS RESERVES - ESTIMATES

<u>SOURCE</u>	<u>ESTIMATES *</u>	<u>YRS OF SUPPLY **</u>	<u>COMMENTS</u>
<b>Energy Information Administration (EIA)</b>	1,190 TCF	<b>52 YRS</b>	January, 2000 - proved, unproved, and unconventional
	1,338 TCF	<b>58 YRS</b>	2005 - Annual Energy Outlook report referenced by EPA
<b>National Petroleum Council</b>	1,779 TCF	<b>77 YRS</b>	January, 1998 - "remaining reserves", all categories
<b>The Potential Gas Committee (CSM)</b>	1,320 TCF	<b>57 YRS</b>	December 31, 2006 - "Traditional" and coalbed resources only
<b>American Clean Skies Foundation</b>	2,247 TCF	<b>118 YRS</b>	North American Natural Gas Supply Assessment (7/4/08)

\* Estimates do not take into account 749.2 TCF of "undiscovered technically recoverable reserves" (USGS -12/08)

\*\* Assumes an annual consumption rate of 23.1 TCF and no growth for the United States

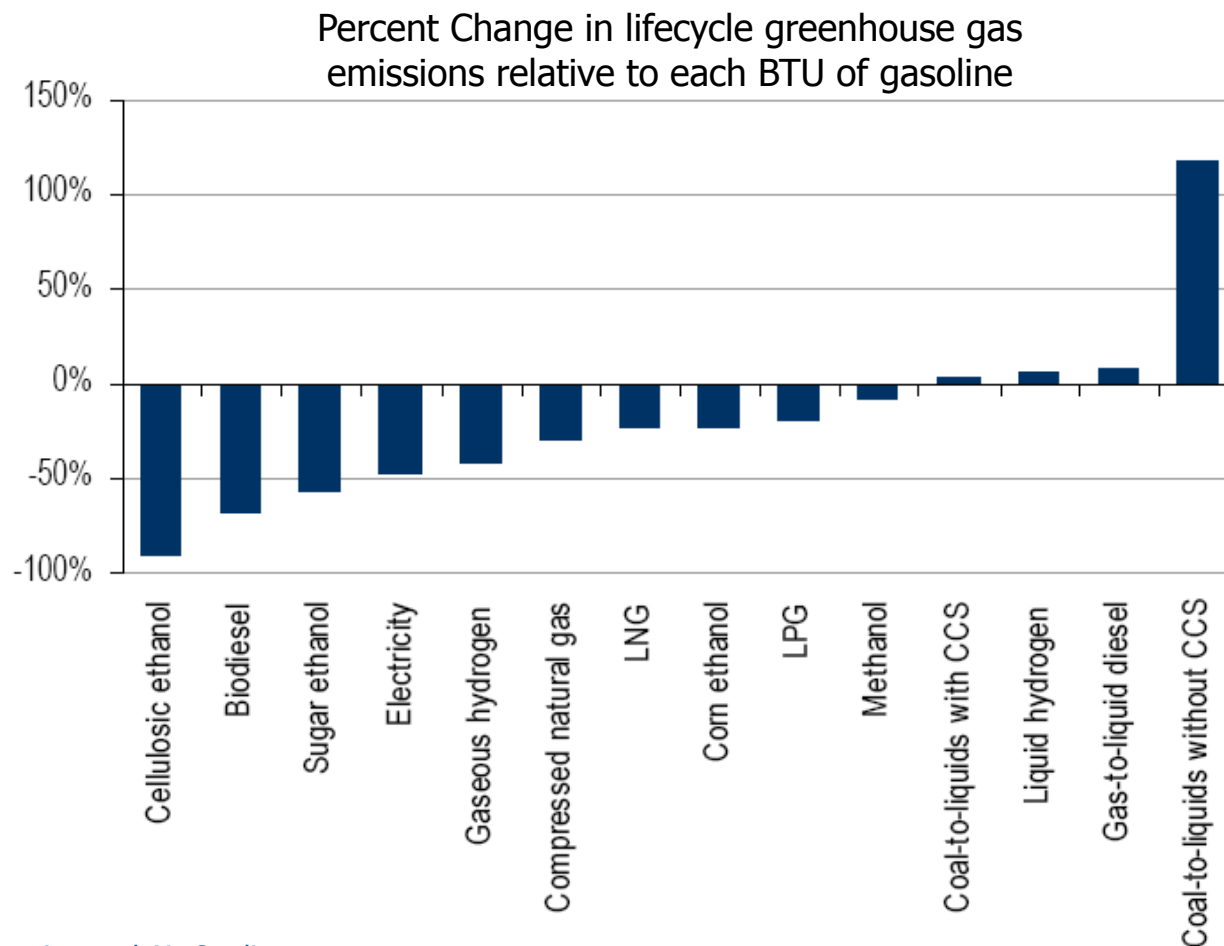
- Discoveries in the last 3 years alone may have added over 100 years of Natural Gas Supply
- Bringing these Natural Gas reserves to market will require continuous investment in drilling, production and pipelines.

## **Natural Gas is an abundant, secure and domestic natural resource**

- 98% of the Natural Gas used in America is from North America
- Converting just 5% of the 6.5 million heavy trucks on America's roadways to CNG would cut crude oil imports by 500,000 barrels per day
- Converting just 5% of the 145 million passenger vehicles to CNG would cut crude oil imports by an additional 1,000,000 barrels per day

# Natural Gas is an abundant, secure and domestic natural resource

- Converting heavy trucks and passenger cars to CNG also has the potential to reduce greenhouse gas emissions relative to gasoline and even corn ethanol





## Energy demand will continue to grow and Natural Gas will play a significant role in meeting these needs

- America's and the world's demand for energy will grow by 30-50% over the next two decades
- Simply put, America and the rest of the world will need all the energy that markets can deliver. **We're going to need it all – oil, Natural Gas, coal, nuclear, wind, solar, geothermal, and biofuels**

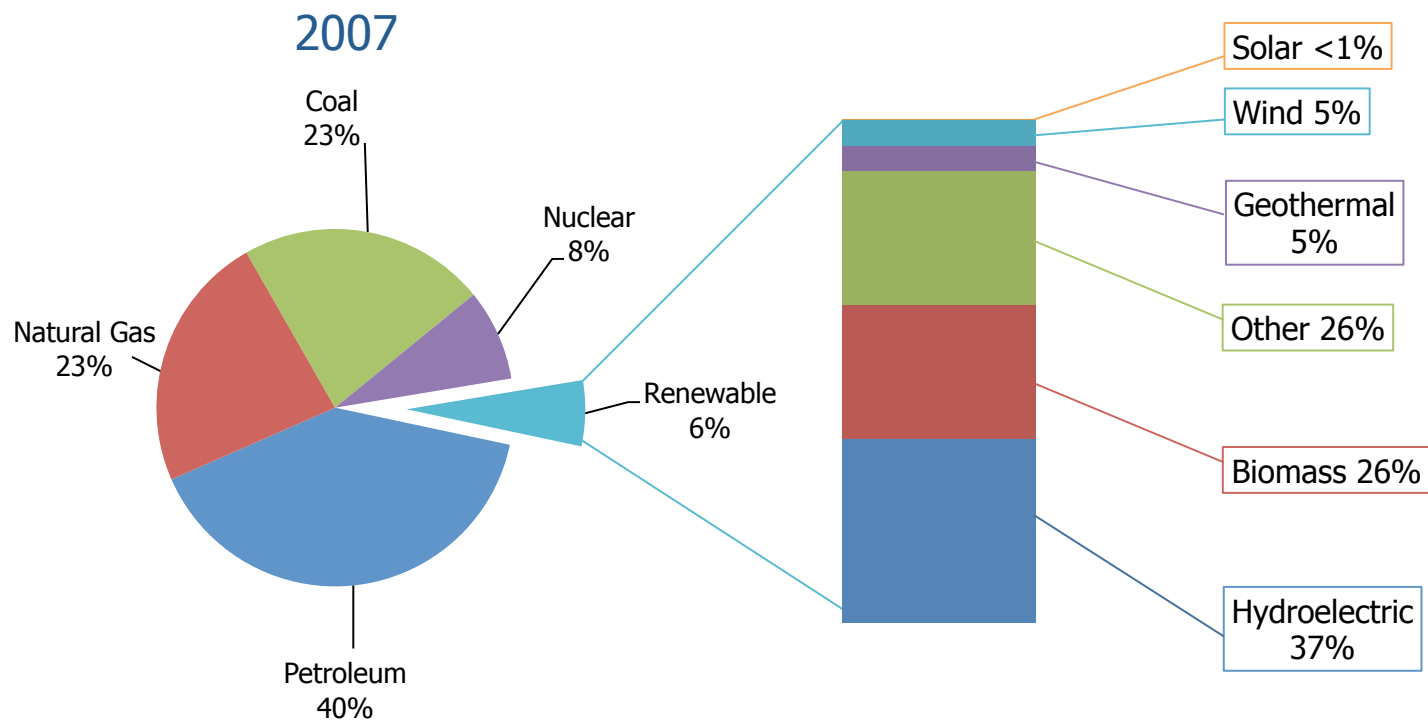
# How can we best utilize this abundant and domestic Natural Gas resource?

- Transportation

- 97% of the energy consumed in transportation in the U.S. is from petroleum based fuels - EIA Annual Energy Outlook 2009
- Only 0.07% of the energy consumed in transportation in the U.S. is from Natural Gas - EIA Annual Energy Outlook 2009
- Natural Gas is the only domestic non-petroleum based energy resource (Natural Gas, coal, wind, solar, hydro, geo-thermal and bio fuels) that can be easily used as a transportation fuel
- Currently, only 20% of the public transit buses in the US run on Natural Gas (CNG)
- Natural Gas vehicles (NGV) – there are 8.7 million NGV's worldwide vs. 143 thousand in the US, most manufactured by Ford, Honda and General Motors - "The Honda Civic GX has so few emissions, it's the cleanest internal-combustion powered car on the road." – USA Today, May 8, 2007
- Not only does increasing the usage of Natural Gas as a transportation fuel significantly reduce tailpipe CO2 Emissions, it has the potential to significantly reduce our reliance on imported crude oil

# How much does Renewable Energy currently impact our energy supply?

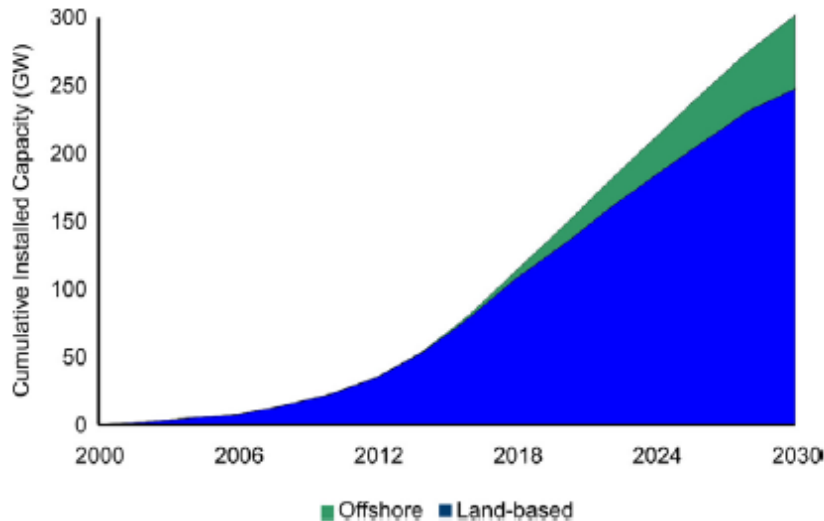
- Renewable energy currently provides 6% of our total primary energy consumption - EIA: Annual Energy Outlook 2009



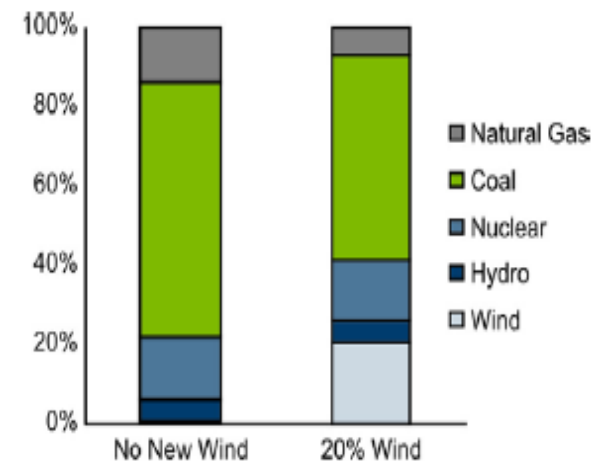
- Even with a four-fold increase in renewable energy, Natural Gas will still play a major role in supplying our energy needs

# How much can wind energy impact our energy supply?

- Wind energy currently provides less than 0.5% of our total primary energy consumption - EIA Annual Energy Review 2009
- The DOE's goal of 300 GW of installed wind powered electricity capacity by 2030 will require 19,300 square miles of land, or slightly more than the total landmass of Vermont and New Hampshire combined - DOE: "20% Wind Energy by 2030"



Cumulative wind capacity necessary to produce 20% of projected electricity by 2030  
Source: DOE "20% Wind Energy by 2030"



U.S. Electrical Energy Mix By 2030  
Source: DOE "20% Wind Energy by 2030"

# How much can Solar Power impact our Energy Supply?

- Solar energy currently provides less than 1/10<sup>th</sup> of 1% of U.S. total primary energy consumption – EIA Annual Energy Outlook 2009
- Currently the largest operating Solar PV plant in North America is located at Nellis AFB in Clark County Nevada with a 14 MW Solar PV plant operating on 140 acres
- If you wanted to supply Washington DC with power from Solar PV panels, you would need 42 square miles of panels – or about 70% of the total land area of Washington D.C.



## **Studies have been done that dispute green jobs creation**

**Spanish study finds 2.2 jobs destroyed for each green job created** - “Study of the effects on employment of public aid to renewable energy sources” Research director : Gabriel Calzada Álvarez  
PhD Universidad Rey Juan Carlos in Spain

## **Non-integrated Natural Gas Producers are Price Takers, not Price Setters**

- U.S. Natural Gas production currently averages approximately 53 billion cubic feet per day
- Approximately 80% of this production is produced by the more than 5,000 non-integrated Natural Gas producers in the U.S.
- Non-integrated Natural Gas producers typically sell their gas at the wellhead, to numerous purchasers (gatherers, marketers, end users), under contracts that provide for payment based upon a percentage of the price the purchaser receives
- In these contractual relationships, we are “price takers” not “price setters” and we do not have the contractual ability or the market power to pass on increased costs, such as a carbon tax applied at the wellhead, to our purchaser

# What are the implications of “Carbon Cap and Trade”?

- **Congress and the current Administration are proposing the creation of a new property right**, the right to create CO<sub>2</sub>, then sell that right to the highest bidder, set the rules for who gets carbon allowances, and distribute the huge amounts of tax revenue collected
- **Massive Tax Increase on all Americans:**
  - At least \$78.8 Billion annually based on administration budget forecasts.
  - At least \$300 Billion annually based on Congressional Budget Office estimates.
  - By 2019 the carbon tax will be the 6th largest source of federal receipts.
- **According to a recently released study by the George Marshall Institute, depending on final version of the legislation, by 2015 the carbon tax could:**
  - Increase electricity prices 5-15%
  - Increase residential natural gas prices 12-50%
  - Increase gasoline prices 9-142%
- **To cut CO<sub>2</sub> emissions by 1.2 billion tons by 2012 (Kyoto target) we would need to:**
  - Outlaw the use of gasoline, or
  - Shut down over half of our coal fired electric generation and ask 60 million Americans to volunteer to stop using electricity



## What are the implications of “Carbon Cap and Trade” legislation on the future of Natural Gas supply?

- **Natural Gas, when burned as a fuel, emits approximately .01 metric tons of CO<sub>2</sub> per MCF.** If carbon permits are priced at \$50/ton, Natural Gas producers will pay approximately \$.50/mcf for carbon permits
- **Some forecast that carbon prices may approach \$300/metric ton by 2030** - that is a \$3.00/mcf tax directly on the Natural Gas producer at the wellhead
- **The Natural Gas producer, unlike the utility or refinery, has no way to reduce this cost.** We cannot add emissions controls, build nuclear or gas fired plants, or take any measures to mitigate the cost of these permits
- **This bill has the potential to reduce U.S. Natural Gas production** and make us even more dependent on imported oil

## Final Thoughts...

- Natural Gas is a secure and viable bridge to the future
- The supply of Natural Gas is abundant and demand forecasts call for increasing energy needs that will require all forms of energy
- In order to develop and produce our abundant Natural Gas reserves, regulatory policy must encourage the drilling for more Natural Gas
- Technologies exist that can increase the use of Natural Gas as a cleaner burning transportation fuel
- Renewable energy has a role in the future, but it will represent a small portion of our total energy needs
- Gas Producers do not set the price of Natural Gas
- **Carbon Cap and Trade is likely to have a negative impact on the entire U.S. economy with the likely result of increased dependence on imported oil unless we encourage and support the use of Natural Gas as a Bridge Fuel**



[www.laredopetro.com](http://www.laredopetro.com)